WATER SUPPLY OUTLOOK

KOOTENAI RIVER BASIN

MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow for the next six months is expected to be near average and a little greater than last year on the Kootenai and its tributaries.

The low elevation snow pack is below average and continues to decrease with warmer temperatures. The high elevation snow pack is generally near or a little above average in the northern portion of the drainage in British Columbia and a little below average in the Montana drainages.

Over all, mountain snow pack is about 87 percent of last year and 93 percent of the 1948-62 average.

Soils are generally saturated in the low and mid elevations as a result of recent snow melt.

Report prepared by
P.E. FARNES AND S.E. COOK
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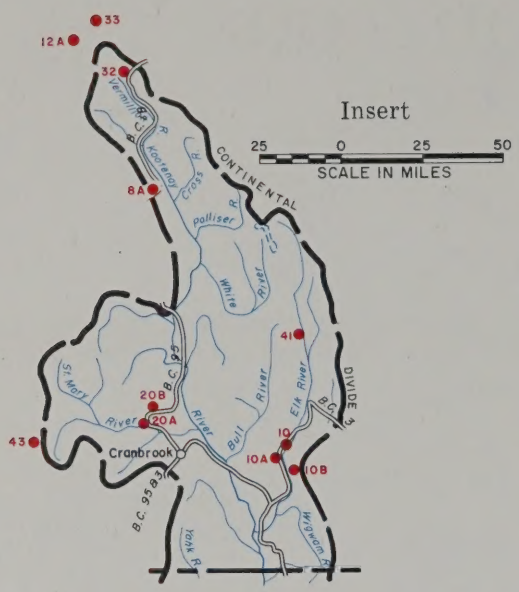
KOOTENAI RIVER BASIN



LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
- Stream Gaging Station
- Drainage
- S.W.C.D. Boundary
- Watershed Boundary
- Highway
- Town
- County Boundary
- State Boundary

See Insert

C A N A D A

I D A H O

L I N C O L N

F L A T H E A D

L I N C O L N S. W. C. D.

14A07
14A11
15A01
Rexford
Eureka
U.S. 93
Yaak River
Tobacco River
MONT. 37
RIVER
3050
3045
U.S. 2
Yaak
Troy
Warland
Libby
3030
KOOTENAI
Creek
14A04
Fisher
Wolf
3020
Libby Creek
Happy Inn
River
15A02
15811
15815
U.S. 2
10 0 10
SCALE IN MILES

WATERSHED LOCATION

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
15B11	Baree Creek	5500	3/31	102	45.0	48.1	50.5
15B16	Baree Midway	4600	3/31	86	35.0	-	-
15B15	Baree Trail	3800	3/31	28	9.6	10.6	-
14A04	Brush Creek	5000	3/29	38	12.8	13.9	14.3*
BC 10	Fernie	3500	3/30	25	8.7	13.1	9.5
BC 12A	Field	4200	3/31	16	4.6	8.3	5.4
BC 11	Glacier	4100	3/28	76	30.4	25.8	27.6
14A11	Graves Creek	4300	3/30	43	17.4	21.6	-
BC 43	Gray Creek	5100	3/28	58	20.3	19.9	19.7
BC 33	Kicking Horse	5400	3/30	43	13.6	15.3	14.8
BC 20B	Kimberley	3800	3/30	21	6.9	10.6	7.7
BC 32	Marble Canyon	5000				14.2	13.8
BC 10B	Morrissey Ridge	6100				35.5	-
BC 10A	New Fernie	4100	3/30	42	16.1	20.1	15.4*
15A01	Red Mountain	6000	3/31	51	20.0	22.0	21.4
BC 8A	Sinclair Pass	4500				4.6	5.4
BC 20A	Sullivan Mine	5100	3/31	38	13.7	15.6	15.6
BC 41	Upper Elk River	4400	3/28	18	6.5	9.7	8.2
14A07	Weasel Divide	5450	3/30	74	31.2	40.0	34.1

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
15B15M	Baree Trail	3800	48	7.5	3/31	7.6	6.2	-
14A10M	Murphy Lake R.S.	3000	48	22.6	4/1	22.2	22.3	-
15A02M	Raven R.S.	3050	48	23.0	4/1	22.2	21.0	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED I

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	FISHER RIVER					
3020	Jennings (near)	Apr-Sept	305	96		318
	KOOTENAI RIVER					
3030	Libby (at)	Apr-Sept	8300	103	8040	8096
	YAAK RIVER					
3045	Troy (near)	Apr-Sept	555	100		555
	KOOTENAI RIVER					
3050	Leonia (at)	Apr-Sept	9500	102	9131	9327

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK

FLATHEAD RIVER BASIN

MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow for the next six months is expected to average about 85 to 95 percent average. The higher percentage flows are expected from the northern tributaries. This is about three-fourths the runoff that occurred last year.

The low elevation snow pack is decreasing rapidly with the warmer temperatures. Some melt is occurring at the higher elevations. Over all, the mountain snow pack is about 72 percent of last year and 87 percent of the 1948-62 average.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Report prepared by

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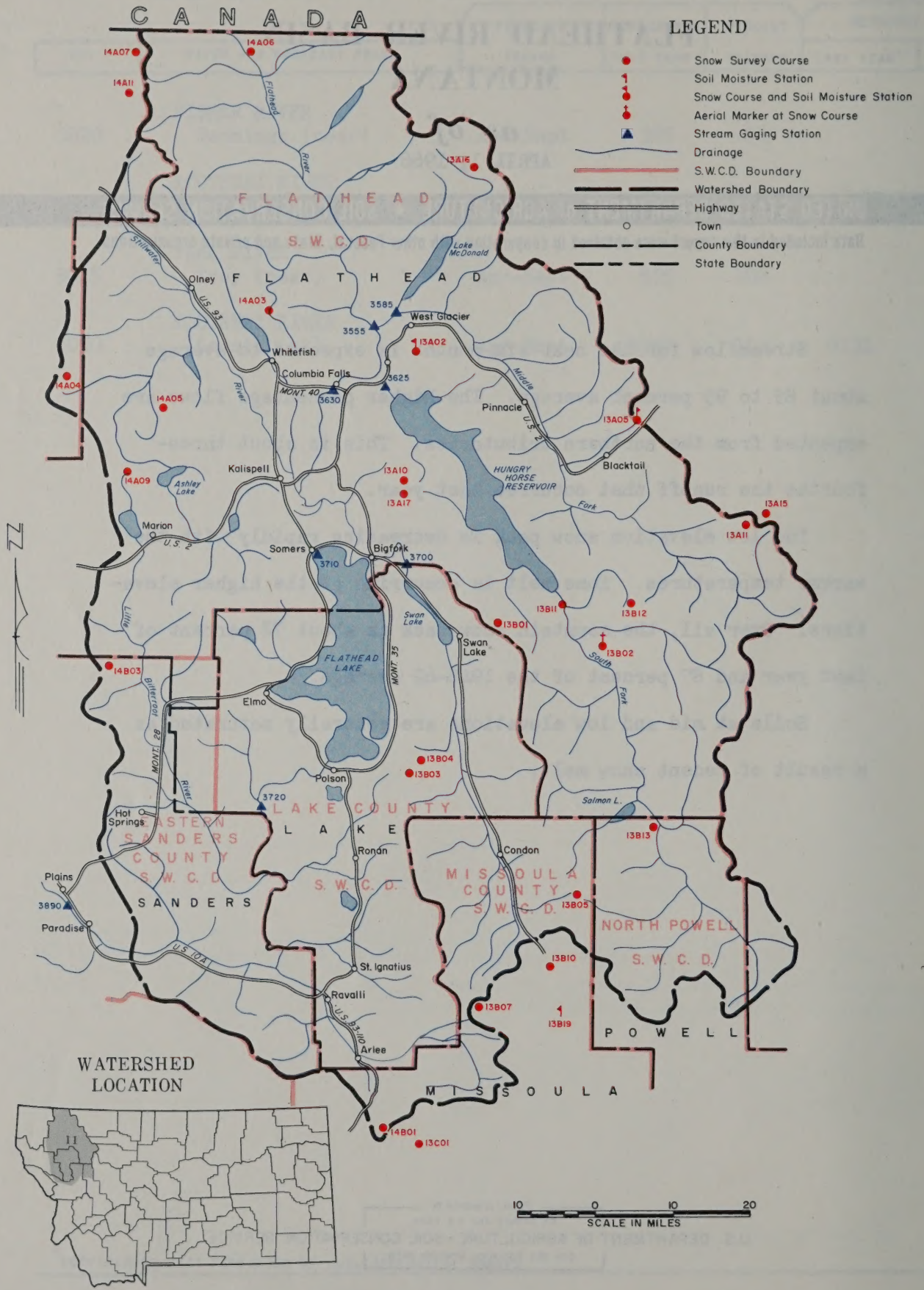
BOX 855, BOZEMAN, MONTANA 59715

FLATHEAD LAKE RIVER BASIN



MT-2b

SNOW SURVEY DATA

WATERSHED II

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13A15	Badger Pass	6900	3/28	86	34.2	44.5	-
14B03	Bassoo Peak	5150	3/28	36	13.2	12.6	13.4*
13A11	Beaver Lake	5900	3/28	57	21.6	30.9	-
13B03	Big Creek	6750	3/31	86	37.0	51.6	46.4
14A04	Brush Creek	5000	3/29	38	12.8	13.9	14.3*
13A17	Camp Misery	6400	3/29	100	40.6	61.0	43.0*
13B10	Coyote Hill	4200	4/1	18	5.9	13.8	11.0
13A02	Desert Mountain	5600	3/28	40	14.8	21.8	16.9
13B04	Fatty Creek	5500	3/31	51	20.3	25.6	21.7*
BC 10	Fernie	3500	3/30	25	8.7	13.1	9.5
14A11	Graves Creek	4300	3/30	43	17.4	21.6	-
14A09	Griffin Creek Divide	5150	3/30	30	9.9	13.2	14.3*
13B12	Gunsight Lake	6300	3/28	91	38.9	50.9	-
14A03	Hell Roaring Divide	5770	3/30	68	29.2	39.5	32.3
13B13	Holbrook	4530	3/28	28	10.6	14.5	10.4*
14A06	Kishenehn	3890	3/28	23	7.6	12.0	10.4
14A05	Logan Creek	4300	3/29	23	6.8	9.5	9.5
13A05	Marias Pass	5250	3/29	46	18.3	26.8	20.1
13A16	Mineral Creek	4000	4/3	45	18.1	27.4	22.9
BC 10B	Morrissey Ridge	6100				35.5	-
BC 10A	New Fernie	4100	3/30	42	16.1	20.1	15.4*
13B07	North Fork Jocko	6330	4/1	84	36.6	55.0	46.7
13B02	Spotted Bear Mountain	7000	3/29	37	13.4	19.9	15.5
13C01	Stuart Mountain	7400				37.4	32.6
13B01	Trinkus Lake	6100	3/29	91	39.4	54.2	44.2*
14B01	TV Mountain	6800	3/29	48	17.0	23.2	18.7*
13B11	Twin Creeks	3580	3/29	31	12.8	15.9	12.1*
13B05	Upper Holland Lake	7000	3/29	76	31.0	45.0	36.3*
14A07	Weasel Divide	5450	3/30	74	31.2	40.0	34.1

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
13A02M	Desert Mountain	5600	54	8.4	3/28	7.4	7.6	7.4
13A05M	Marias Pass	5250	54	6.5	4/3	5.8	5.7	5.4
13B19M	Seeley Lake	4030	48	11.9	4/4	12.4	10.0	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED II

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	NORTH FORK FLATHEAD RIVER					
3555	Columbia Falls (near)	Apr-Sept	1920	95		2027
	MIDDLE FORK FLATHEAD RIVER					
3585	West Glacier (near)	Apr-Sept	1724	89	2208	1923
	SOUTH FORK FLATHEAD RIVER					
3625	Columbia Falls (nr)(7)	Apr-Sept	2035	86	2817	2381
	FLATHEAD RIVER					
3630	Columbia Falls (at)(7)	Apr-Sept	5830	90	7472	6497
	SWAN RIVER					
3700	Big Fork (near)	Apr-Sept	600	86		694
	FLATHEAD RIVER					
3720	Polson (near)(8)	Apr-Sept	6900	89	9216	7778

(7) Adjusted for storage in Hungry Horse Reservoir.
(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3620	Hungry Horse	3428.0	2214.0	1567.0	2244.4
3710	Flathead Lake	1791.0	650.4	958.1	690.8
3756	Camas (4)	45.2	31.0	22.0	33.8
3801	Mission Valley (8)	100.3	63.6	37.7	37.2

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK

LOWER CLARK FORK RIVER BASIN

MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow is expected to be about 65 to 80 percent average in the upper reaches of the Clark Fork and 85 percent average below the Flathead River. Streams tributary to the lower Clark Fork should produce 80 to 85 percent average streamflow during the next six months. On all streams, forecasts are considerably less than the runoff that occurred last year.

The mountain snow pack is quite low in the upper Clark Fork drainages, averaging about 70 percent average. The Flathead drainage is about 87 percent average. The snow pack on tributaries to the lower Clark Fork is about 70 percent of last year and 87 percent of the 1948-62 average. Low elevation snow is decreasing rapidly because of warmer temperatures. Some melt is occurring at the higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Report prepared by
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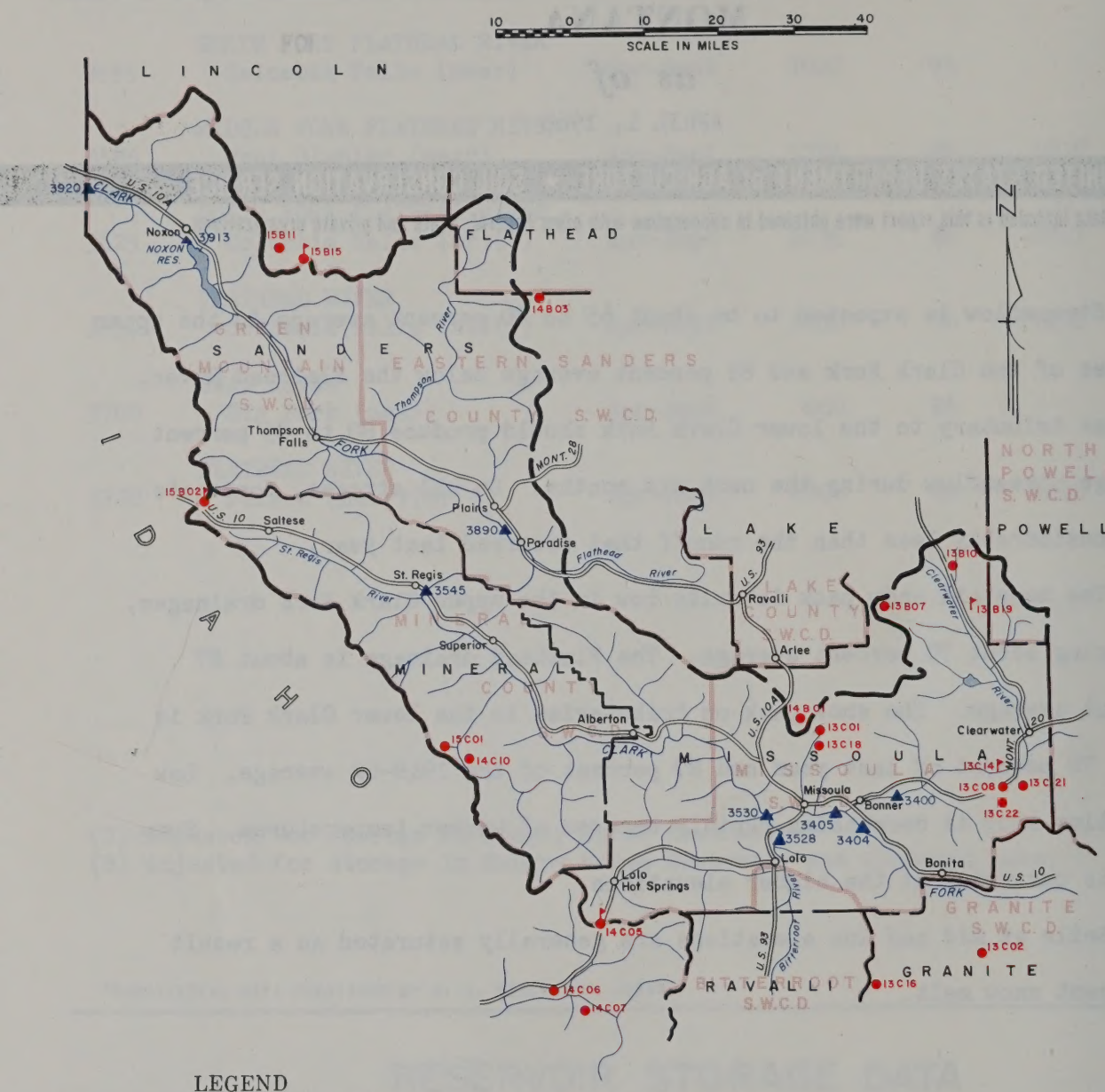
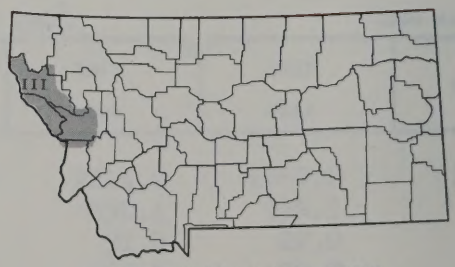
"The Conservation of Water begins with the Snow Survey"

LOWER CLARK FORK RIVER BASIN



LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
- Stream Gaging Station
- Drainage
- S.W.C.D. Boundary
- Watershed Boundary
- Highway
- Town
- County Boundary
- State Boundary



WATERSHED LOCATION

WATERSHED III

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13C16	Ambrose	6480	3/29	38	12.8	17.6	14.3*
15B11	Baree Creek	5500	3/31	102	45.0	48.1	50.5
15B16	Baree Midway	4600	3/31	86	35.0	-	-
15B15	Baree Trail	3800	3/31	28	9.6	10.6	-
14B03	Bassoo Peak	5150	3/28	36	13.2	12.6	13.4*
13B10	Coyote Hill	4200	4/1	18	5.9	13.8	11.0
14C10	Heart Lake Trail	4800	3/31	56	23.4	24.9	-
15C01	Hoodoo Creek	5900	3/31	104	42.6	55.6	53.4
14C05	Lolo Pass	5230	3/28	68	27.5	37.9	36.4*
15B02	Lookout	5250	3/31	87	34.3	41.0	40.5
13C21	Lubrecht Forest No. 3	5450	4/3	17	5.0	10.2	8.2*
13C22	Lubrecht Forest No. 4	4650	4/3	3	0.8	4.6	3.5*
13C08	Lubrecht Forest No. 6	4040	4/3	2	0.6	6.5	3.5*
13B07	North Fork Jocko	6330	4/1	84	36.6	55.0	46.7
14C04	Savage Pass	6600	3/29	65	25.9	32.1	30.5*
13C02	Slide Rock Mountain	7100	3/30	38	13.2	20.8	16.0
13C18	Spring Gulch	6000	4/2	24	8.7	17.2	12.5*
13C01	Stuart Mountain	7400	4/3	69	28.0	37.4	32.6
14B01	TV Mountain	6800	3/29	48	17.0	23.2	18.7*

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
15B15M	Baree Trail	3800	48	7.5	3/31	7.6	6.2	-
14C05M	Lolo Pass	5250	48	10.6	4/1	6.2	7.2	-
13B19M	Seeley Lake	4030	48	11.9	4/4	12.4	10.0	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED III

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	BLACKFOOT RIVER					
3400	Bonner (near)	Apr-Sept	830	80	1368	1036
	CLARK FORK RIVER					
3404	Milltown (above)(4)	Apr-Sept	510	64	1149	802
	CLARK FORK RIVER					
3405	Missoula (above)	Apr-Sept	1340	73	2554	1838
	BITTERROOT RIVER					
3528	Missoula (at)(6)	Apr-Sept	1120	72	1983	1553
	CLARK FORK RIVER					
3530	Missoula (below)	Apr-Sept	2460	73	4500	3391
	CLARK FORK RIVER					
3545	St. Regis (at)	Apr-Sept	3500	75	6007	4642
	CLARK FORK RIVER					
3890	Plains (near)(8)	Apr-Sept	10750	84	15780	12793
	THOMPSON RIVER					
3895	Thompson Falls (near)	Apr-Sept	250	83	312	302
	PROSPECT CREEK					
3907	Thompson Falls (at)	Apr-Sept	132	80	160	165
	CLARK FORK RIVER					
3920	Whitehorse Rapids (at)(9)	Apr-Sept	12130	84	17390	14398

(4) Difference in observed flow, Clark Fork above Missoula & Blackfoot near Bonner.
(6) Difference in observed flow, Clark Fork above and below Missoula.
(8) Adjusted for storage in Flathead Lake and Hungry Horse Reservoir.
(9) Adjusted for storage in Flathead Lake, Hungry Horse and Noxon Reservoirs.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3913	Noxon Rapids	334.6	189.0	150.4	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
UPPER CLARK FORK RIVER BASIN
MONTANA

as of
APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE
Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow during the next six months is expected to be about 65 percent average on the Clark Fork streams and 80 percent average on the Blackfoot drainage. Forecasts on tributaries to the Clark Fork are near the low flows that occurred in 1961. Late season flows are expected to be much below average with shortages of irrigation water on the tributaries not having reservoir storage.

If you obtain irrigation water from an unregulated stream your local SCS Work Unit can provide alternatives for adjusting your operations to the low supply. Next time you are in town, why don't you stop in?

The mountain snow pack is presently about one-half as much as a year ago, and 67 percent average. Low elevation snow is decreasing rapidly because of warmer temperatures. Some melt is occurring at the higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

A new snow course, Copper Mountain, has been established east of Butte near the Continental Divide.

Report prepared by
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"The Conservation of Water begins with the Snow Survey"

UPPER CLARK FORK RIVER BASIN

WATERSHED LOCATION

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13C16	Ambrose	6480	3/29	38	12.8	17.6	14.3*
13C13	Black Pine	7100	3/31	31	10.5	19.4	14.6*
13C13	Black Pine Pillow	7100	3/31	SP	10.9	-	-
12C05	Chessman Reservoir	6200	3/31	4	1.2	6.1	4.9
12B10	Copper Creek	5700	3/28	37	13.2	18.8	-
12C09	Copper Mountain	7700	3/29	32	9.0	New Course	
12B11	Cotter Mine	6250	3/28	44	15.5	22.6	-
13C09	El Dorado Mine	7800	3/29	46	15.4	30.2	22.6*
13C11	Fred Burr Pass	8000	4/1	50	18.2	36.2	29.0*
13C10	Gold Creek Lake	7200	3/29	37	12.4	22.3	17.0*
13C04	Intergaard	6450	4/1	19	5.6	10.6	8.5*
13C21	Lubrecht Forest No. 3	5450	4/3	17	5.0	10.2	8.2*
13C22	Lubrecht Forest No. 4	4650	4/3	3	0.8	4.6	3.5*
13C08	Lubrecht Forest No. 6	4040	4/3	2	0.6	6.5	3.5*
12D01	Pipestone Pass	7200	3/30	17	4.6	6.2	6.2
13C12	Red Lion	7100	4/1	34	11.4	24.1	17.5*
13C03	Skalkaho Summit	7260	3/31	56	20.4	35.7	27.4
13C02	Slide Rock Mountain	7100	3/30	38	13.2	20.8	16.0
13C05	Southern Cross	6500	4/1	14	4.8	9.2	7.0*
13C01	Stemple Pass	6600	3/28	30	8.3	13.8	11.0
13C07	Storm Lake	7780	4/1	31	9.8	20.0	15.5
13C06	Stuart Mill	6500	4/1	15	4.7	8.2	7.5*
12C02	Ten Mile Lower	6600	3/30	13	3.4	10.5	7.2
12C03	Ten Mile Middle	6800	3/30	25	7.0	15.1	11.2
12C04	Ten Mile Upper	8000	3/30	30	9.3	20.6	14.3

SP - Snow Pillow observation - water content only.

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
13C13M	Black Pine	7100	48	10.0	3/31	5.9	-	-
13C15M	Georgetown Lake	6450	48	9.0	4/1	3.6	3.2	2.9
13C03M	Skalkaho Summit	7260	48	10.8	3/31	10.0	8.9	-
12C08M	Stemple Pass	6350	48	5.9	3/31	5.2	4.2	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED IV

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	FLINT CREEK					
3301	Boulder Creek (below)(3)	Apr-Sept	48.0	66	110	73.0
	MIDDLE FORK ROCK CREEK					
3320	Philipsburg (near)	Apr-Sept	53.0	68		77.8
	BLACKFOOT RIVER					
3400	Bonner (near)	Apr-Sept	830	80	1368	1036
	CLARK FORK RIVER					
3404	Milltown (above)(4)	Apr-Sept	510	64	1149	802

(3) Sum, Flint Creek at Maxville and Boulder Creek at Maxville.
(4) Difference in observed flow, Clark Fork above Missoula and Blackfoot near Bonner

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3250	Georgetown Lake	31.0	24.0	23.9	21.8

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
BITTERROOT RIVER BASIN
MONTANA
as of
APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow during the next six months is expected to be about 70 to 75 percent average on the Bitterroot River and upper tributaries, and near the low flows that occurred in 1961. Blodgett Creek is forecast near the record low flows of 1960 and 1963. Late season flows are expected to be much below average with shortages of irrigation water on all tributaries not having reservoir storage.

If you obtain irrigation water from an unregulated stream, your local SCS Work Unit can provide alternatives for adjusting your operations to the low supply. Next time you are in town, why don't you stop in?

The mountain snow pack in the Bitterroot drainages averages about 60 percent of last year and 71 percent of the 1948-62 average. Low elevation snow is decreasing because of warmer temperatures. Some melt is occurring at higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Storage in reservoirs is generally average and most of them should fill with spring runoff.

Report prepared by
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"The Conservation of Water begins with the Snow Survey"

BITTERROOT RIVER BASIN

MT-5b

WATERSHED V

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13C16	Ambrose	6480	3/29	38	12.8	17.6	14.3*
13D01	East Fork R. S.	5400	3/28	15	5.4	8.4	7.7
13D02	Gibbons Pass	7100	3/31	43	15.4	30.5	25.0
14D03	Kit Carson	5020	3/28	19	6.6	12.6	9.0
14C05	Lolo Pass	5230	3/28	68	27.5	37.9	36.4*
14C07	Lost Horse	5940	4/1	58	22.8	38.4	35.6*
13D16	Moose Creek	6200	3/28	32	10.4	24.6	17.1
14D02	Nez Perce Camp	5680	3/28	33	10.5	20.3	15.8
14D01	Nez Perce Pass	6570	3/28	37	13.1	23.3	18.3
13D22	Saddle Mountain	7940	3/28	53	18.4	32.6	-
14C04	Savage Pass	6600	3/29	65	25.9	32.1	30.5*
13C03	Skalkaho Summit	7260	3/31	56	20.4	35.7	27.4
14C08	Twin Lakes	6510	4/1	76	30.8	54.6	46.7*

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
13D18M	Gibbons Pass	7100	48	7.1	3/28	5.0	5.4	5.6
14C05M	Lolo Pass	5250	48	10.6	4/1	6.2	7.2	-
13C03M	Skalkaho Summit	7260	48	10.8	3/31	10.0	8.9	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED V

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	WEST FORK BITTERROOT RIVER					
3425	Conner (near)(5)	Apr-Sept	132	74		179
	BITTERROOT RIVER					
3440	Darby (near)	Apr-Sept	425	73	740	582
	BLODGETT CREEK					
3475	Corvallis (near)	Apr-Sept	35.5	80		44.6
	BITTERROOT RIVER					
3528	Missoula (at)(6)	Apr-Sept	1120	72	1983	1553

(5) Adjusted for storage in Painted Rocks Reservoir.
(6) Difference in observed flow, Clark Fork above and below Missoula.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3420	Painted Rocks	31.7	14.5	-	14.1
3445	Como	34.9	16.2	17.2	13.4

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
MARIAS, TETON and SUN RIVER BASINS
MONTANA
as of
APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow during the next six months is forecast to be 75 to 85 percent average. Late season flows are expected to be a little below average, with minor shortages on streams not having reservoir storage.

The mountain snow pack is presently about 65 percent of last year and 86 percent of the 1948-62 average.

Low elevation snow is decreasing because of warm temperatures. Some melt is occurring at higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Storage in reservoirs is near to a little above average and should fill with spring runoff.

Report prepared by
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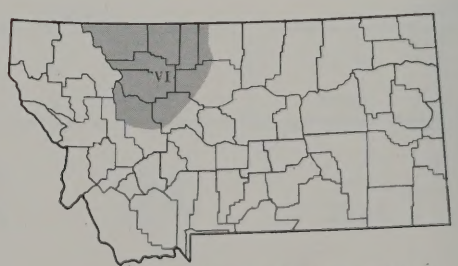
MARIAS, TETON and SUN RIVER BASINS

LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
- Stream Gaging Station
- Drainage
- S.W.C.D. Boundary
- Watershed Boundary
- Highway
- Town
- County Boundary
- State Boundary



WATERSHED LOCATION

WATERSHED VI

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
13A15	Badger Pass	6900	3/28	86	34.2	44.5	-
13A11	Beaver Lake	5900	3/28	57	21.6	30.9	-
12B06	Cabin Creek	5200	3/28	20	7.4	12.4	7.0*
12B09	Five-Bull	5700	3/29	20	6.3	10.0	7.1*
12A01	Freight Creek	6000	3/28	43	15.4	24.2	17.0
12B07	Goat Mountain	7000	3/31	29	9.1	16.2	12.3
13A18	Hudson Bay Divide	5800	3/30	46	15.9	23.4	-
13A05	Marias Pass	5250	3/29	46	18.3	26.8	20.1
13A16	Mineral Creek	4000	4/3	45	18.1	27.4	22.9
12B01	West Fork	6000	3/28	32	11.0	24.4	16.9*
12B04	Wrong Creek	5700	3/28	40	15.6	21.8	15.8*
12B03	Wrong Ridge	6800	3/28	51	19.9	29.1	22.2*

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
NO.	NAME	ELEVATION	DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
13A05M	Marias Pass	5250	54	6.5	4/3	5.8	5.7	5.4

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED VI

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	SUN RIVER					
0786	Gibson Dam (at)(18)	Apr-Sept	532	87	702	610
	MISSOURI RIVER					
0908	Fort Benton (at)(17)	Apr-Sept	2500	75		3319
	TWO MEDICINE CREEK					
0920	Browning (near)(19)	Apr-Sept	226	83		271
	BADGER CREEK					
0925	Browning (near)	Apr-Sept	120	84		143
	CUT BANK CREEK					
0990	Cut Bank (at)	Apr-Sept	106	75	148	142
	MARIAS RIVER					
0995	Shelby (near)(20)	Apr-Sept	524	81	734	651

(17) Adjusted for storage in Canyon Ferry Reservoir.
(18) Adjusted for storage in Gibson Reservoir and diversions.
(19) Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.
(20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0795	Gibson	105.0	52.6	49.8	60.6
0805	Pishkun	32.0	18.8	17.1	18.2
0820	Willow Creek	32.3	25.2	16.1	21.0
0930	Four Horns	20.0	12.0	13.1	10.6
0940	Swift	30.0	-	-	23.9
0955	Lake Frances	112.0	93.4	84.7	92.8
1013	Tiber	1347.0	724.7	712.9	647.4

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
MISSOURI RIVER (MAIN STEM) BASIN
MONTANA
as of
APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow for the next six months is forecast to be about 75 percent average from tributaries on the west side of the Missouri, south of the Sun River. Runoff from the Sun River and tributaries on the east side will be about 85 percent average. Late season streamflow is expected to be below average from streams originating along the Continental Divide south of the Sun River, and near to a little below average on other tributaries.

If your irrigation water supply is obtained from an unregulated stream, your local SCS Work Unit can provide alternatives for adjusting your operations to the low water supply. Next time you are in town, why don't you stop in?

The mountain snow pack over the area is about one-half of last year and 75 percent of the 1948-62 average. The snow is much less percentagewise along the Divide.

Low elevation snow is decreasing rapidly with warmer temperatures. Some melt is occurring at higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Report prepared by
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MISSOURI RIVER (MAIN STEM) BASIN

MT-7b

WATERSHED VII

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
11C01	Boulder Mountain	7950	3/29	47	14.7	20.8	15.5*
12C05	Chessman Reservoir	6200	3/31	4	1.2	6.1	4.9
10C09	Deadman Creek	6450	3/31	24	7.0	-	-
10C07	Elk Peak	8000	3/30	43	13.7	23.0	15.8*
10C02	Grasshopper	7000	3/30	16	3.5	6.7	5.7
10C01	Kings Hill	7500	3/29	34	10.1	17.0	13.6
10C06	Spur Park	8000	3/31	48	16.4	27.5	19.2*
12C01	Stemple Pass	6600	3/28	30	8.3	13.8	11.0
12C02	Ten Mile Lower	6600	3/30	13	3.4	10.5	7.2
12C03	Ten Mile Middle	6800	3/30	25	7.0	15.1	11.2
12C04	Ten Mile Upper	8000	3/30	30	9.3	20.6	14.3

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
NO.	NAME	ELEVATION	DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
10C01M	Kings Hill	7420	48	11.8	3/31	8.8	8.2	-
12C08M	Stemple Pass	6350	48	5.9	3/31	5.2	4.2	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED VII

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER					
0545	Toston (at)(16)	Apr-Sept	1635	76	3413	2147
	PRICKLY PEAR CREEK					
0615	Clancy (near)	Apr-Sept	16.5	75		22.0
	SHEEP CREEK					
0770	White Sulphur Spgs.(nr)	Apr-Sept	13.7	83	32.2	16.5
	SUN RIVER					
0786	Gibson Dam (at)(17)	Apr-Sept	532	87	702	610
	MISSOURI RIVER					
0908	Fort Benton (at)(18)	Apr-Sept	2500	75		3319

(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.
(17) Adjusted for storage in Gibson Reservoir and diversions.
(18) Adjusted for storage in Canyon Ferry Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0585	Canyon Ferry	2043.0	1506.0	1643.0	1529.0
0645	Lake Helena	10.4	10.0	9.0	5.6
0650	Hauser Lk.& Lk. Helena	61.9	60.7	57.9	44.6
0660	Holter Lake	81.9	80.0	15.0	51.7
0750	Smith River	10.7		8.8	6.5

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
JEFFERSON RIVER and TRIBUTARY BASINS
MONTANA
as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Streamflow for the next six months should be about 10 percent below average in the upper Red Rock River areas and 20 to 25 percent below average in the remaining drainages. All streams will produce about one-half the runoff that occurred last year. Late season flows are expected to be below average on all drainages.

If your irrigation water supply is from an unregulated stream, your local SCS Work Unit can provide alternatives for adjusting your operations to the low water supply. Next time you are in town, why don't you stop in?

The mountain snow pack over the entire Jefferson River drainage is about 45 percent of last year. In the Beaverhead drainage, snow cover is about 65 percent average, while the Big Hole-Boulder area is about 60 percent average. Low elevation snow is decreasing rapidly with warmer temperatures. Snow melt is occurring at higher elevations with many south and west facing slopes bare up to 8000 and 9000 feet elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Two new snow courses were established. Copper Mountain Snow Course is in the headwaters of Big Pipestone Creek, west of Butte; Upper West Fork Snow Course is on the divide between the headwaters of the Ruby River and West Fork Madison River.

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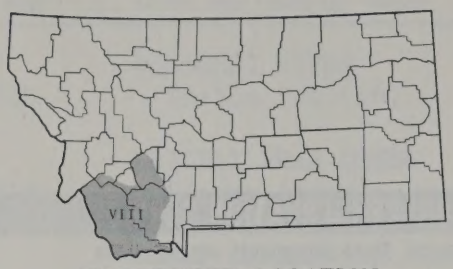
"The Conservation of Water begins with the Snow Survey"

JEFFERSON RIVER and TRIBUTARY BASINS



WATERSHED LOCATION

LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
- Stream Gaging Station
- Drainage
- S.W.C.D. Boundary
- Watershed Boundary
- Highway
- Town
- County Boundary
- State Boundary

WATERSHED VIII

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13D20	Abundance Lake	8800	4/1	43	14.1	26.7	-
12C07	Berry Meadow	7300	4/1	18	5.8	9.5	7.8*
13D10	Bloody Dick	7600	3/29	25	7.2	16.6	11.7
11D07	Call Road	8050	4/1	30	8.4	13.9	-
12D04	Carter Creek	7400	3/30	17	4.2	7.4	-
12C05	Chessman Reservoir	6200	3/31	4	1.2	6.1	4.9
11D08	Clover Meadow	8600	4/1	42	12.9	22.4	-
12C09	Copper Mountain	7700	3/29	32	9.0	New Course	
13E22	Dad Creek Lake	8400	3/28	37	10.3	20.4	-
13D19	Darkhorse Lake	8600	4/2	49	18.6	36.4	-
12E07	Divide	7900	4/1	28	7.6	15.7	-
13D15	Elk Horn Springs	7800	3/31	24	6.6	15.2	10.4
13D21	Foolhen	8280	4/1	36	10.9	23.1	-
11D12	Four Mile	6900	3/31	19	5.8	11.2	-
13D02	Gibbons Pass	7100	3/31	43	15.4	30.5	25.0
13D09	Gold Stone	8100	3/29	33	10.1	21.2	15.3
13D08	Jahnke Creek	7340	3/29	19	5.2	13.2	11.2
11E04	Lakeview Canyon	6930	3/30	37	9.8	19.4	10.8
11E03	Lakeview Ridge	7400	3/30	31	8.4	17.0	9.7
13E01	Lemhi Pass	7480	3/28	20	5.6	15.3	9.2
11D11	Lower Twin	7900	3/31	46	16.2	28.8	-
13D16	Moose Creek	6200	3/28	32	10.4	24.6	17.1
11D03	North Meadow	7500	3/31	22	6.2	13.7	9.4*
12E06	Notch	8500	4/1	42	12.7	17.7	-
12C06	Picnic Grounds	6500	4/1	10	2.4	5.2	4.8*
12D01	Pipestone Pass	7200	3/30	17	4.7	6.2	6.2
13C07	Storm Lake	7780	4/1	31	9.8	20.0	15.5
12C02	Ten Mile Lower	6600	3/30	13	3.4	10.5	7.2
12C03	Ten Mile Middle	6800	3/30	25	7.0	15.1	11.2
12C04	Ten Mile Upper	8000	3/30	30	9.3	20.6	14.3
13E02	Trail Creek	7090	3/28	22	5.6	14.2	8.8
11E27	Upper West Fork	8750	3/22	52	14.4	New Course	
12E01	White Pine Ridge	8850	4/1	9	2.3	6.7	5.9

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
13D18M	Gibbons Pass	7100	48	7.1	3/28	5.0	5.4	5.6
11E13M	Lakeview	6700	48	15.3			13.4	10.3

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED VIII

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	RED ROCK RIVER					
0110	Kennedy Ranch (at)	Apr-Sept	64.0	89	96.6	71.7
	RED ROCK RIVER					
0125	Monida (near)(11)	Apr-Sept	70.0	89	136	78.4
	BIG HOLE RIVER					
0255	Melrose (near)	Apr-Sept	570	79	1166	718
	BOULDER RIVER					
0330	Boulder (near)	Apr-Sept	58.0	76	139	76.3
	JEFFERSON RIVER					
0345	Sappington (at)(12)	Apr-Sept	745	76	1729	974

(11) Adjusted for storage in Lima Reservoir.
(12) Adjusted for storage in Clark Canyon Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0120	Lima	84.0	47.3	46.3	27.3
0153	Clark Canyon	328.9	156.3	85.7	-
0205	Ruby	38.8		-	26.1

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK

MADISON and GALLATIN RIVER BASINS

MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Spring and summer streamflow on the Gallatin River and Hyalite Creek is expected to be near the low flows that occurred in 1961, and about one-half that which occurred last year. Tributaries to the Madison and Bridger Creek will produce a little more water than in 1961 but still about 75 to 80 percent average. The snow pack in the Madison River headwaters is much better than other areas in the drainage. As a result, flow from the Madison River will be 85 to 90 percent average. Late season flows will be below average on all streams in the Gallatin drainage and tributaries to the Madison River. Irrigation water shortages will occur on all streams not having reservoir storage.

If your irrigation water is from an unregulated stream, your local SCS Work Unit can provide alternatives for adjusting your operations to the low water supply. Next time you are in town, why don't you stop in?

The mountain snow pack over both the Gallatin and Madison drainages is about 55 percent of last year and 75 percent of the 1948-62 average. Low elevation snow is decreasing rapidly with warmer temperatures. Some melt is occurring at the higher elevations.

Soils at low and mid elevations are generally saturated as a result of recent snow melt.

Report prepared by
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"The Conservation of Water begins with the Snow Survey"

MADISON and GALLATIN RIVER BASINS

SNOW SURVEY DATA

WATERSHED IX

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
10D14	Arch Falls	7350	4/4	33	9.3	16.0	12.1*
11D09	Bear Basin	8150	4/2	43	14.3	25.8	20.4*
11E09	Big Springs	6500	3/30	44	16.8	26.3	22.6
10D15	Bridger Bowl Pillow	7250	3/30	SP	21.8	29.7	-
11D07	Call Road	8050	4/1	30	8.4	13.9	-
10E03	Canyon	7750	3/29	41	13.0	24.4	16.3
11D08	Clover Meadow	8600	4/1	42	12.9	22.4	-
10D05	Crevice Mountain	8400	3/30	23	6.2	11.7	9.5
10D04	Devil's Slide	8100	4/4	55	16.4	29.8	22.3
11D12	Four Mile	6900	3/31	19	5.8	11.2	-
11E25	Freezeout Lake	7200	3/23	31	7.1	14.6	-
11E26	Freezeout Mountain	8250	3/23	52	14.2	24.8	-
11E05	Hebgen Dam	6550	3/30	24	7.3	15.2	12.2
10D03	Hood Meadow	6600	4/4	22	6.2	13.5	10.0
11E10	Island Park	6315	3/30	34	11.5	20.8	17.6
11D05	Jack Creek	7500	3/30	12	4.0	7.0	6.9*
11E22	Lake Creek	6100	3/23	26	6.2	10.3	-
10D13	Lick Creek Pillow	6860	4/1	SP	7.0	-	-
11D10	Little Park	7400	4/2	36	10.7	19.9	14.8*
11D11	Lower Twin	7900	3/31	46	16.2	28.8	-
11E23	Meridian Creek	7000	3/23	32	6.5	15.2	-
10D01	New World	6700	3/25	34	9.0	13.8	10.8
11E02	Norris Basin	7500	3/31	25	6.9	14.6	9.9*
11D03	North Meadow	7500	3/31	22	6.2	13.7	9.4*
11E21	Potomageton Park	7150	3/30	33	11.4	18.5	-
10D10	Sacajawea	6550	3/31	33	11.8	18.4	13.0*
11E20	Sentinel Creek	8300	3/30	53	18.2	31.7	-
10D16	Shower Falls Pillow	8100	4/1	SP	20.3	-	-
11E24	Tepee Creek	8000	3/23	42	10.0	22.7	-
10E07	Thumb Divide	7900	3/29	59	21.1	32.1	24.2
11E06	Twenty-One Mile	7150	3/29	43	13.9	27.2	18.2
11E08	Valley View	6500	3/30	39	13.0	25.9	16.4
11E07	West Yellowstone	6700	3/30	26	7.9	14.8	11.7

SP - Snow Pillow observation - water content only.

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
10D11M	Battle Ridge	6020	48	17.6	3/31	14.8	15.4	13.4
10D15M	Bridger Bowl	7250	48	15.8	3/31	16.7	-	-
11D02M	College Site	4856	54	14.5	4/1	13.8	10.4	11.2
10D13M	Lick Creek	6860	48	18.8	4/1	14.8	-	-
10D04M	Red Bluff	4800	40	4.7	4/1	2.3	2.3	2.5
11E06M	Twenty-One Mile	7150	48	10.0	3/28	3.0	1.6	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED IX

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MADISON RIVER					
0375	West Yellowstone (near)	Apr-Sept	190	91	272	208
	MADISON RIVER					
0385	Grayling (near)(13)	Apr-Sept	380	91	577	420
	MADISON RIVER					
0410	McAllister (near)(14)	Apr-Sept	615	86	1010	718
	GALLATIN RIVER					
0435	Gateway (near)	Apr-Sept	358	80	649	447
	BRIDGER CREEK					
0485	Bozeman (near)	Apr-Sept	15.0	75	31.3	19.9
	HYALITE CREEK					
0500	Bozeman (near)(15)	Apr-Sept	28.5	83	53.2	35.6
	GALLATIN RIVER					
0525	Logan (at)	Apr-Sept	325	70	747	467
	MISSOURI RIVER					
0545	Toston (at)(16)	Apr-Sept	1635	76	3413	2147

(13) Adjusted for storage in Hebgen Lake.
(14) Adjusted for storage in Hebgen and Ennis Lakes.
(15) Adjusted for storage in Middle Creek Reservoir.
(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0380	Hebgen Lake	377.5	222.3	224.4	179.1
0405	Ennis Lake	41.0	39.2	14.4	36.4
0495	Middle Creek	8.0	2.4	4.0	3.9

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
JUDITH and MUSSELSHELL RIVER BASINS
MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Spring and summer runoff is forecast to be about 80 percent average and about one-half that which occurred last year. Late season flows are expected to be near average to a little below average.

The snow pack is presently about 60 percent of last year and 75 percent average. Low elevation snow is decreasing with warmer temperatures. Some melt is occurring at the higher elevations.

Soils at mid and low elevations are generally saturated from recent snow melt.

Two new snow courses were established in the Snowy Mountains. Avalanche Snow Course is south of Crystal Lake; Rock Creek Snow Course is near the road to Crystal Lake. These courses should give a better profile of the snow pack in the Snowy Mountains.

Reservoir storage is not available but all should obtain adequate storage from the spring runoff.

Report prepared by
P.E. FARNES AND S.E. COOK
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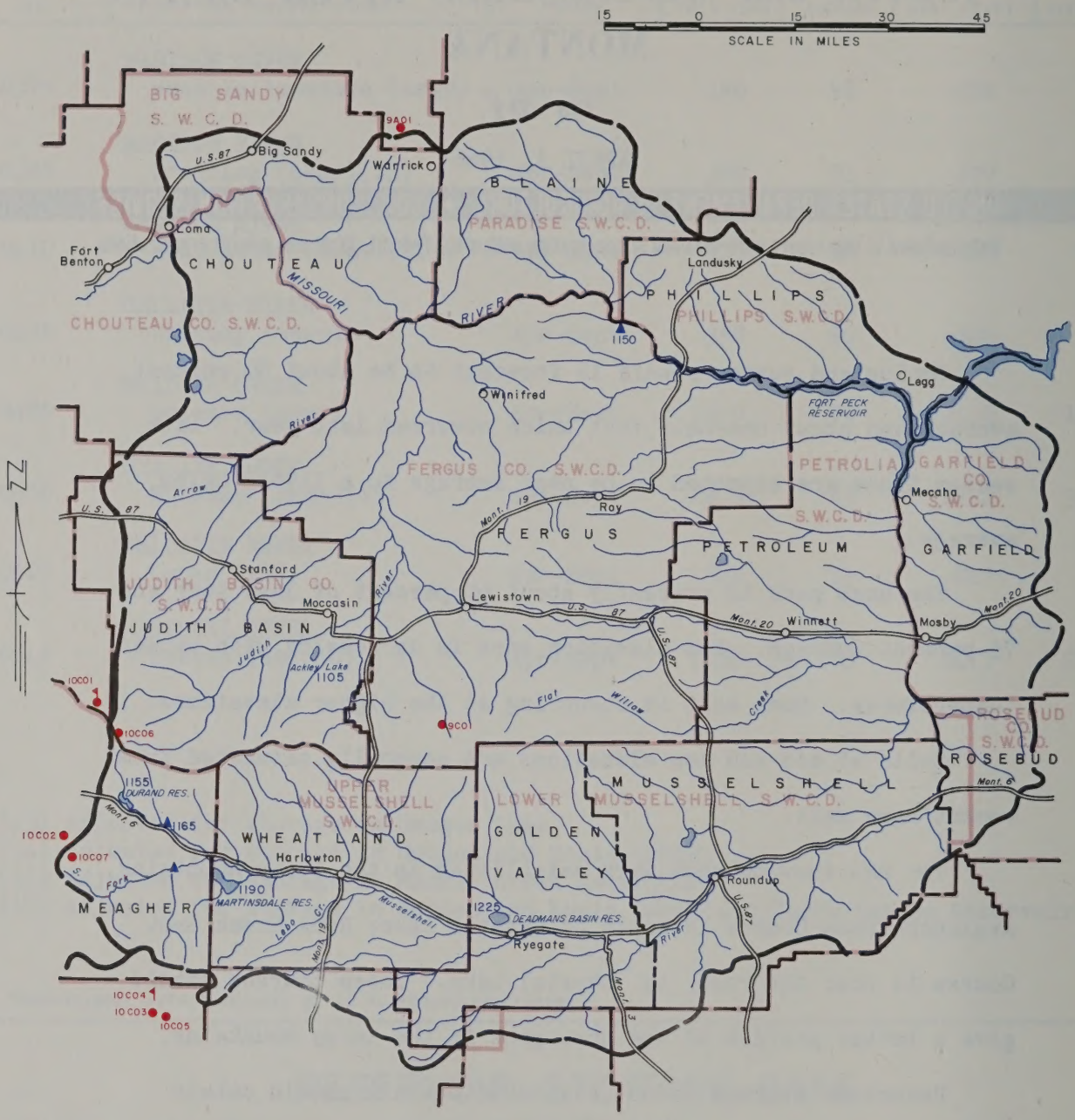
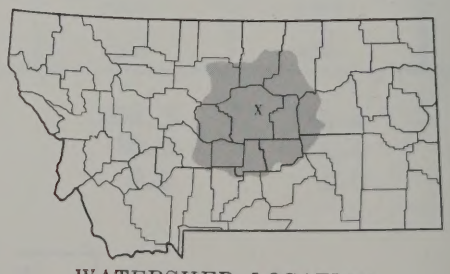
JUDITH and MUSSELSHELL RIVER BASINS



LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
- Stream Gaging Station
- Drainage
- S.W.C.D. Boundary
- Watershed Boundary
- Highway
- Town
- County Boundary
- State Boundary



WATERSHED LOCATION

SNOW SURVEY DATA

WATERSHED X

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
9C02	Avalanche	7100	4/1	45	16.3	New Course	
10C05	Bald Ridge	7500	3/30	31	10.0	16.6	11.7*
9C01	Crystal Lake	6100	4/1	21	7.2	16.1	12.2
10C09	Deadman Creek	6450	3/31	24	7.0	-	-
10C07	Elk Peak	8000	3/30	43	13.7	23.0	15.8*
10C02	Grasshopper	7000	3/30	16	3.5	6.7	5.7
10C01	Kings Hill	7500	3/29	34	10.1	17.0	13.6
10C03	Porcupine R. S.	6500	3/30	22	6.3	10.4	7.7
9C03	Rock Creek	5600	4/1	14	5.1	New Course	
9A01	Rocky Boy	5200	3/28	11	3.3	7.1	4.3
10C08	South Fork Shields	8100	3/30	59	21.2	30.5	-
10C06	Spur Park	8000	3/31	48	16.4	27.5	19.2*

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
10C01M	Kings Hill	7420	48	11.8	3/31	8.8	8.2	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED X

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	JUDITH RIVER					
1100	Utica (near)	Apr-Sept	28.0	84	71.5	33.5
	MISSOURI RIVER					
1150	Zortman (near)(21)	Apr-Sept	3400	75		4508
	N. FORK MUSSELSHELL RIVER					
1155	Delpine (near)	Apr-Sept	4.6	77	10.0	6.0
	S. FORK MUSSELSHELL RIVER					
1185	Martinsdale (above)	Apr-Sept	39.0	80	73.6	48.8

(21) Corrected for storage in Canyon Ferry and Tiber Reservoirs.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
1105	Ackley Lake	5.8		-	3.5
1165	Durand	7.0		6.8	4.9
1190	Martinsdale	23.1		7.3	8.7
1225	Deadman's Basin	72.2		52.7	41.6

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK
UPPER YELLOWSTONE RIVER BASIN
MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

Spring and summer streamflow will be about one-half as much as last year and 15 to 25 percent below average. Runoff from streams originating in the Beartooth-Absaroka range is forecast to be near the low flows that occurred in 1961. The Yellowstone headwaters, Shields and Clarks Fork Rivers are forecast a little higher percentagewise. Late season flows are expected to be below average on all tributaries except the upper Yellowstone and Shields, where late season supplies will be near to or a little below average. Shortages of late season irrigation water will occur on most tributaries not having reservoir storage.

If you obtain irrigation water from an unregulated stream, your local SCS Work Unit can provide alternatives for adjusting your operations to the low supply. Next time you are in town, why don't you stop in?

The mountain snow pack over the upper Yellowstone drainage is about 55 percent of last year and 73 percent of the 1948-62 average. Low elevation snow is decreasing with the warmer temperatures. Some snow melt is occurring at the higher elevations.

Soils at mid and low elevations are generally saturated as a result of recent snow melt.

Report prepared by
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BOX 855, BOZEMAN, MONTANA 59715

"The Conservation of Water begins with the Snow Survey"

UPPER YELLOWSTONE RIVER BASIN

MT-11b

SNOW SURVEY DATA

WATERSHED XI

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE NO.	NAME	ELEVATION	CURRENT DATA: DATE OF SURVEY	CURRENT DATA: SNOW DEPTH	CURRENT DATA: WATER CONTENT	PAST RECORD: WATER CONTENT: LAST YEAR	PAST RECORD: WATER CONTENT: AVERAGE
10C05	Bald Ridge	7500	3/30	31	10.0	16.6	11.7*
10D15	Bridger Bowl Pillow	7250	3/30	SP	21.8	29.7	-
9D01	Camp Senia	7890	3/25	26	4.4	9.6	6.3
10E03	Canyon	7750	3/29	41	13.0	24.4	16.3
9D07	Cooke Guard Station	8150	4/1	41	13.3	-	-
10D05	Crevice Mountain	8400	3/30	23	6.2	11.7	9.5
10D04	Devil's Slide	8100	4/4	55	16.4	29.8	22.3
10E06	East Entrance	7000	3/30	23	5.0	10.2	11.3*
9D06	Fisher Creek	9100	4/1	82	33.6	-	-
9D05	Grizzly Peak	8400	3/31	38	12.0	20.6	15.7*
10D06	Independence	8000	3/28	40	13.1	24.3	19.2*
10E04	Lake Camp	7850	3/31	28	6.2	15.0	11.1
9E01	Lodgepole	8200	3/30	28	7.8	12.1	11.8*
10E01	Lupine Creek	7300	3/31	27	7.3	13.6	11.2
10D12	Monument Peak	9000	3/28	56	19.3	34.2	23.0*
10E02	Norris Basin	7500	3/31	25	6.9	14.6	9.9*
10D07	Northeast Entrance	7400	4/1	16	4.6	13.5	9.3
10C03	Porcupine R. S.	6500	3/30	22	6.3	10.4	7.7
10D10	Sacajawea	6550	3/31	33	11.8	18.4	13.0*
10D16	Shower Falls Pillow	8100	4/1	SP	20.3	-	-
10C08	South Fork Shields	8100	3/30	59	21.2	30.5	-
10E05	Sylvan Pass	7100	3/30	36	10.0	16.3	14.9
10E07	Thumb Divide	7900	3/29	59	21.1	32.1	24.2
9D04	Timberline Creek	8850	3/25	47	11.4	21.6	14.1*
9D02	West Rosebud	7500				-	-

SP - Snow Pillow Observation - Water Content only.

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION NO.	NAME	ELEVATION	SOIL PROFILE: DEPTH	SOIL PROFILE: FIELD CAPACITY	CURRENT DATA: DATE OF SURVEY	CURRENT DATA: SOIL MOISTURE	PAST RECORD: LAST YEAR	PAST RECORD: **AVERAGE
10D11M	Battle Ridge	6020	48	17.6	3/31	14.8	15.4	13.4
10D15M	Bridger Bowl	7250	48	15.8	3/31	16.7	-	-
10D07M	Northeast Entrance	7350	48	9.4	4/1	7.4	5.8	6.9

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED XI

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	YELLOWSTONE RIVER					
1915	Corwin Springs (at)	Apr-Sept	1630	87	2565	1877
	YELLOWSTONE RIVER					
1925	Livingston (near)	Apr-Sept	1740	82	2982	2127
	SHIELDS RIVER					
1935	Clyde Park (at)	Apr-Sept	84.0	85	162	99.0
	BOULDER RIVER					
2000	Big Timber (at)	Apr-Sept	225	74		343
	STILLWATER RIVER					
2050	Absarokee (near)(25)	Apr-Sept	420	76		552
	CLARKS FORK RIVER					
2075	Chance (at)	Apr-Sept	500	86	763	583
	CLARKS FORK RIVER					
2085	Edgar (at)	Apr-Sept	521	86	809	609
	ROCK CREEK					
2095	Red Lodge (near)	Apr-Sept	78.0	75	140	103
	YELLOWSTONE RIVER					
2145	Billings (at)	Apr-Sept	2980	76	5544	3913

(25) Adjusted for storage in Mystic Lake.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
2040	Mystic Lake	20.8	6.6	4.8	4.8
2120	Cooney	27.5	22.0	14.8	13.5

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY OUTLOOK

MILK RIVER BASIN

MONTANA

as of

APRIL 1, 1966

UNITED STATES DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Data included in this report were obtained in cooperation with other Federal, State and private organizations

The outlook for the current irrigation season is good to excellent. St. Mary runoff is forecast to be near average and will permit near average diversions from the St. Mary River into the Milk River.

Reservoir storage is above average.

The mountain snow pack in the St. Mary headwaters is about 65 percent of last year and 85 percent of the 1948-62 average.

Snow pack in the Bow River area is about 75 percent of last year and 85 percent average.

Soils in the low and mid elevations are generally saturated as the result of recent snow melt.

Report prepared by
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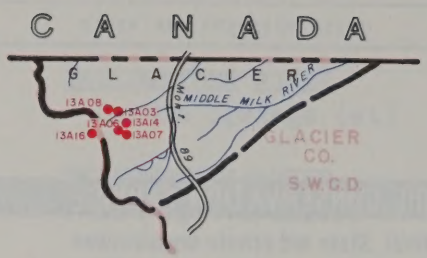
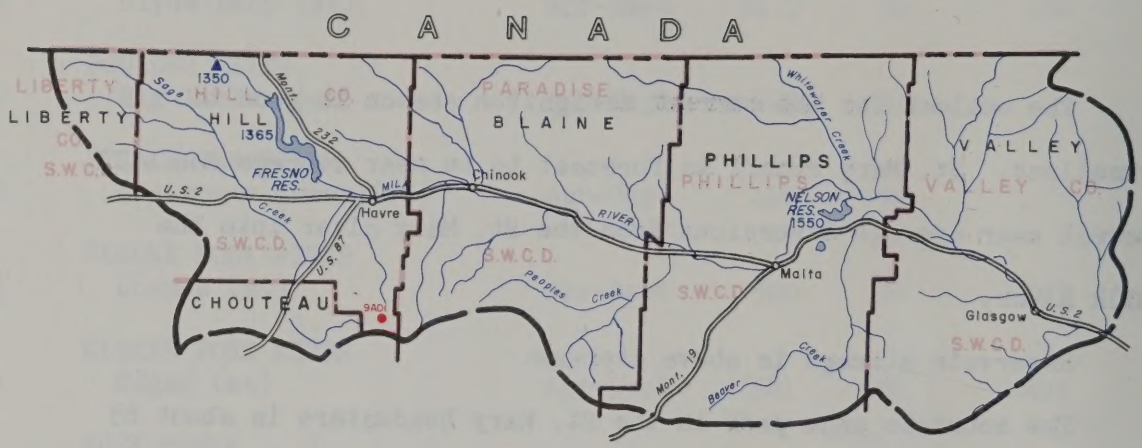
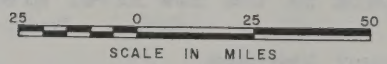
MILK RIVER BASIN







LEGEND

- Snow Survey Course
- Soil Moisture Station
- Snow Course and Soil Moisture Station
- Aerial Marker at Snow Course
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- Drainage
- S. W. C. D. Boundary
- Watershed Boundary
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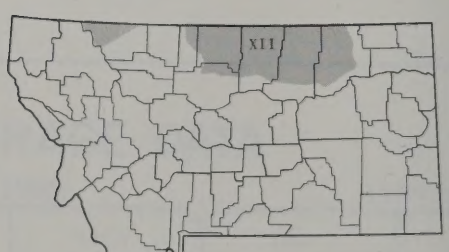

WATERSHED LOCATION

SNOW SURVEY DATA

AS OF APRIL 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NO.	NAME	ELEVATION				LAST YEAR	AVERAGE
13A18	Hudson Bay Divide	5800	3/30	46	15.9	23.4	-
13A05	Marias Pass	5250	3/29	46	18.3	26.8	20.1
13A16	Mineral Creek	4000	4/3	45	18.1	27.4	22.9
9A01	Rocky Boy	5200	3/28	11	3.3	7.1	4.3
	BOW RIVER - CANADA						
ALB. 1	Bow River	5100	3/28	30	8.4	11.2	9.2
ALB. 2	North Course	5400	3/28	30	7.6	10.2	9.1
ALB. 5	Lake Louise	5800	3/29	33	10.3	13.3	10.9
ALB. 6	Mirror Lake	6600	3/29	37	10.8	14.9	13.1
ALB. 8	Misc. Lake Louise	5700	3/29	34	8.9	12.7	11.7
ALB. 10	Mount Eisenhower	5000	3/28	21	5.0	5.9	-

SOIL MOISTURE DATA

AS OF APRIL 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
			DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
NO.	NAME	ELEVATION						
13A05M	Marias Pass	5250	54	6.5	4/3	5.8	5.7	5.4

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE **AVERAGE FOR PERIOD OF RECORD

WATER SUPPLY FORECASTS

WATERSHED XII

AS OF APRIL 1, 1966

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	ST. MARY RIVER					
0175	Babb (near)(30)	Apr-Sept	453	92		491
	MILK RIVER					
1350	Eastern Crossing (at)	Apr-Sept	216	86	332	250

(30) Adjusted for storage in Lake Sherburne.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1966

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
1365	Fresno	127.2	119.9	83.8	81.5
1550	Nelson	66.8	47.9	33.9	34.9

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).